ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
02AH53	Cheshire Monitoring study

SAMPLERS: *(Print Name and Sign)*
Mike Murphy Mike Murphy Mike Murphy

Activity Code: ~~12345~~ 90101A

AIR 20020086
WORK ORDER # 02000074

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte	TAG NUMBERS
D01	6/13	00:00	X		GHS	1		5-340236 1 to 1
S01	6/13	00:00	X		GHS	1		5-340235 1 to 1
S02	6/13	00:00	X		RVHS	1		5-340237 1 to 1
S03	6/13	00:00	X		ADDAVILLE	1		5-340238 1 to 1
								GHS # 3012, P_{STG} Avg = 16.12
								GHS # 3013, P_{STG} Avg = 15.95
								RVHS, P_{STG} Avg = 15.95
								Addaville, P_{STG} Avg = 16.0

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Ship To:
Mike Murphy	6-13-02 1330		
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	ATTN:
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) / Date / Time: 6/14/02 1134	Airbill Number: UPS # 1Z 401 99 01 4052 9324
			Chain of Custody Seal Numbers

5-140059

Project No. 02AH53 **Project Name** CHESHIRE MONITORING STUDY 90101A WORK ORDER # 02C6014

AIR 20020086 ARRIVAL DATE: 6/19/2002 DUE DATE: 7/10/2002

Sampler
Mike Murphy

Cooler ID 02AH531 **Page** 5-140059

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH53D01	D01	13/06/2002 00:00:00	○ Grab ● Com	GHS	1	5-340236 1 to 1

Bottle No. 1 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH53S01	S01	13/06/2002 00:00:00	● Grab ● Com	GHS	1	5-340235 1 to 1

Bottle No. 1 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH53S02	S02	13/06/2002 00:00:00	○ Grab ● Com	RVHS	1	5-340237 1 to 1

Bottle No. 1 **Parameter** PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH53S03	S03	13/06/2002 00:00:00	○ Grab ● Com	ADDAVILLE	1	5-340238 1 to 1

Bottle No. 1 **Parameter** PM10

CENTRAL REGIONAL LABORATORY
Data Checklist

Data Set AIR 0206014 CHESHIRE MONITORING STUDY
PM10

☑ Chain of Custody

☑ Transmittal Report w/signatures of the following:

- Analyst(s)
- Environmental Data Coordinator

Prepared by: Sylvia Griffin 7-3-02
Environmental Data Coordinator

Revised 8/6/02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUL 0 3 2002

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Edgar Santiago, Chemist** E. S.
Region 5 Central Regional Laboratory

To:

Attached are the results for: **CHESHIRE MONITORING STUDY**

CRL work order number: **0206014**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH53D01, 2002AH53S01, 2002AH53S02, and 2002AH53S03.**

JUL 0 3 2002

Data Management Coordinator and Date Received

Date Transmitted: JUL 0 3 2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

/ /

Received by and Date

Comments:

Rev. 7/23/01

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated ***B***lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (***J*** is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL ***M***ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is estimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te***N***tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or ***Q***uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are ***R***ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed for but ***U***ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

Environmental Protection Agency Region 5
Central Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

WORK ORDER **Printed: 7/3/02 8:18:26AM**

0206014

US EPA Region 5 Central Regional Laboratory

Client:	**Air Division, US EPA Region 5**	**Project Manager:**	**Marilyn Jupp**
Project:	**Gavin, Cheshire. Ohio**	**Project Number:**	**[none]**

Report To:
Air Division, US EPA Region 5
Kathy Triantafillou
77 West Jackson Boulevard
Chicago, IL 60605
Phone: (312) 353-4775
Fax: (312) 353-2001

Date Due:	Jul-10-02 15:00 (20 day TAT)		
Received By:	William Sargent	Date Received:	Jun-19-02 11:47
Logged In By:	William Sargent	Date Logged In:	Jun-21-02 14:37

Samples Received at:	°C	Starts 8-3-01
All containers intact:	No	Ends 8-3-02
Sample labels/COC agree:	No	
Samples Preserved Properly:	No	
Custody Seals Present:	No	

Analysis	Due	TAT	Expires	Comments
0206014-01 2002AH53D01 [Air Filter] Sampled Jun-13-02 00:00 Central				**GHS#3013,PSTG AUG=15.95**
PM10	Jul-10-02 12:00	20	Jul-13-02 00:00	
0206014-02 2002AH53S01 [Air Filter] Sampled Jun-13-02 00:00 Central				**GHS#3012,PSTG AUG=16.2**
PM10	Jul-10-02 12:00	20	Jul-13-02 00:00	
0206014-03 2002AH53S02 [Air Filter] Sampled Jun-13-02 00:00 Central				**RVHS,PSTG AUG=15.95**
PM10	Jul-10-02 12:00	20	Jul-13-02 00:00	
0206014-04 2002AH53S03 [Air Filter] Sampled Jun-13-02 00:00 Central				**ADDAVILLE, PSTG AUG 16.0**
PM10	Jul-10-02 12:00	20	Jul-13-02 00:00	

Reviewed By _____ Date _____

Work Order Number:	*0206014*	**Parameter:**	*Suspended Particles*
Facility Name:	*CHESHIRE MONITORING STUDY*		
Study Name:	*CHESHIRE MONITORING STUDY*		
Date of Narrative:	*06/27/2002*	**Analyst:**	*ES*
		Signature:	E-S

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on June 19, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID
Q8609569	2002AH53D01
Q8609554	2002AH53S01
Q8609551	2002AH53S02
Q8609553	2002AH53S03

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 06/26/2002 and was completed on 06/27/2002. All exposed filters were in good conditions. No sampler sn number was provided for filters Q8609562 and Q8609561 (CRL sample I.D number 2002AH53S02 and 2002AH53S03).

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION **SAMPLING DATE:** 06/13/2002 **LAB ARRIVAL DATE:** 06/19/2002 **DUE DATE:** 07/10/2002
DU NUMBER: 90101A **WORK ORDER NUMBER:** 0206014 **STUDY:** CHESHIRE MONITORING STUDY **PRIORITY:** 1 **LABORATORY :**CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH53D01	GUIDING HANDS SCHOOL	0.0536			
2	2002AH53S01	GUIDING HANDS SCHOOL	0.0460			
3	2002AH53S02	RVHS	0.0451			
4	2002AH53S03	ADDAVILLE	0.0463			
DATE OF ANALYSIS			06/26- 27/2002			
ANALYST			ES			

Reviewed by: FAA Date: 7/3/02

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 0206014 Facility: CHESHIRE MONITORING

Parameter: PM10 CRL.SOP: AI6047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: E.S Peer Reviewer: FAA

Date: 6/27/02 Date: 7/3/02

Comments Attached? (Y/N) N

Work Order Number:	*0206014*	**Parameter:**	*Suspended Particles*
Facility Name:	*CHESHIRE MONITORING STUDY*		
Study Name:	*CHESHIRE MONITORING STUDY*		
Date of Narrative:	*06/27/2002*	**Analyst:**	*ES*
		Signature:	

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on June 19, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID
Q8609569	2002AH53D01
Q8609554	2002AH53S01
Q8609551	2002AH53S02
Q8609553	2002AH53S03

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 06/26/2002 and was completed on 06/27/2002. All exposed filters were in good conditions. No sampler sn number was provided for filters Q8609562 and Q8609561 (CRL sample I.D number 2002AH53S02 and 2002AH53S03).

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT
PM10

Parameter: Suspended Particles

Work Order **0206013, 0206014**

Date of Analysis 06/26- 27/2002

Analyst: ES

BALANCE VERIFICATION:

Sandard Weights Actual (g)	Balanced weight Balanced (g)	Differences (g)
		Limit +/-0.0005 g
1.0000	1.0000	0.0000
2.0000	2.0001	-0.0001
5.0000	5.0001	-0.0001

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID Number	CRL Sample I.D Number	Analysis Date	ANALYST	Exposed weight (g)
Q8609569	2002AH53D01	06/13/02	Analyst 1	4.4459
Q8609569	2002AH53D01	06/13/02	Analyst 2	4.4457
Differences (Limit +/- 5 mg).....		.....		0.0002

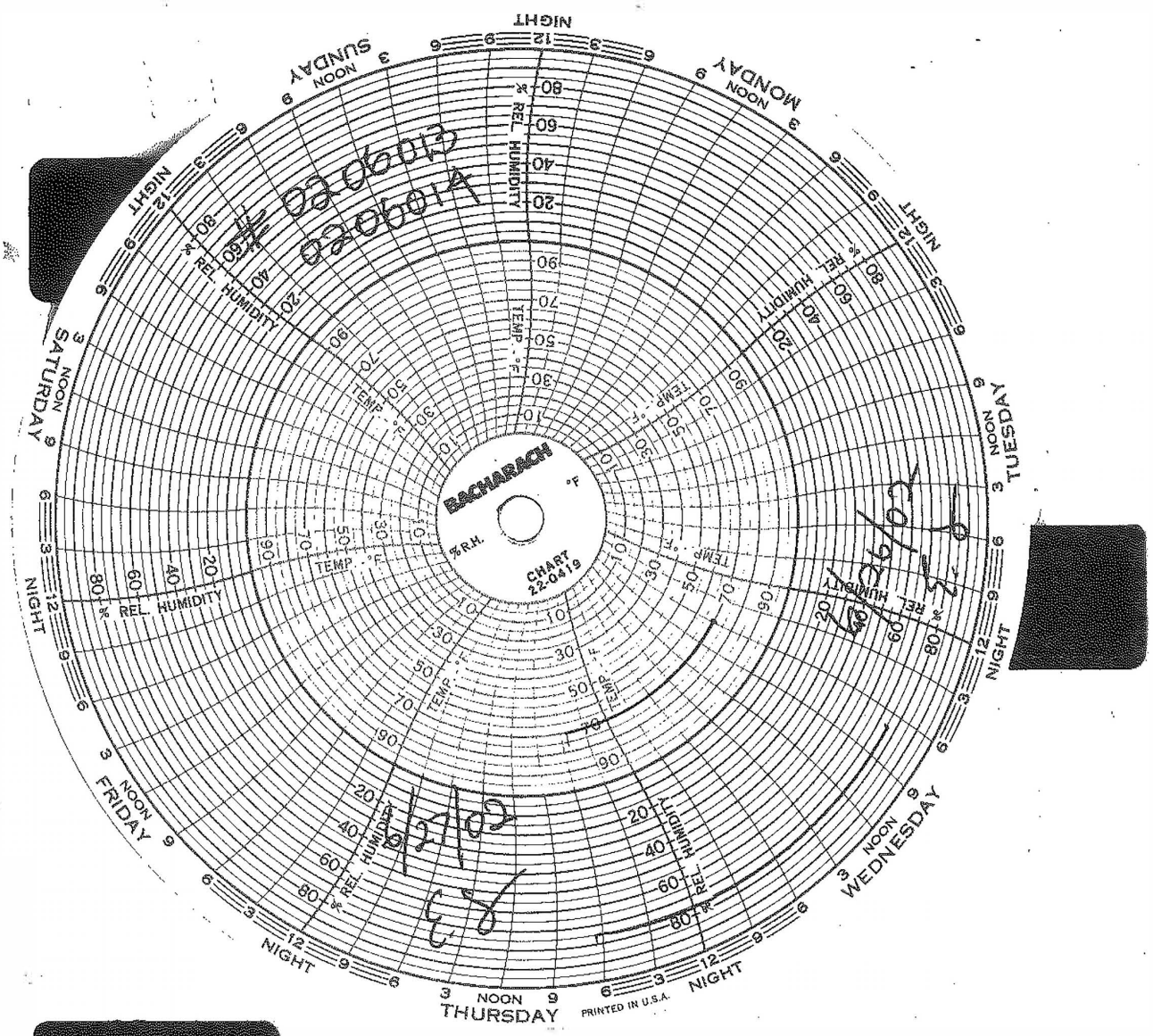
CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID Number	CRL Sample I.D Number	Sampling Date	Station Location	Sampler SN	Pstg Avg	P1/Pa	Total Volume (M^3)	Pre Weight of filters (g)	Exposed weight (g)	Weight Gain	PM10 (UG/M^3)
Work Order Number 0206014											
Q8609569	2002AH53D01	06/13/02	Guiding Hands School	3013	15.95		**0.00**	4.3923	4.4459	0.0536	ERR
Q8609554	2002AH53S01	06/13/02	Guiding Hands School	3012	16.20		**0.00**	4.3975	4.4435	0.0460	ERR
Q8609551	2002AH53S02	06/13/02	RVHS		15.95		**0.00**	4.3948	4.4399	0.0451	ERR
Q8609553	2002AH53S03	06/13/02	Addaville		16.00		**0.00**	4.4153	4.4616	0.0463	ERR

General information	*Standard weights, actual (g)*	*Balanced weights, balanced (g)*	
[redacted]			
SARTORIUS	(mg) (500+200+200+100)	1.0000	1.0001
#37010119		2.0000	1.9999
6/12/02 ES		5.0000	5.0001
Mettler AG 285	0-1000		0.0999
1120181846	0-2000		0.2000
13 June 02	0-5000		0-5000
	1.000 (0.5+0.2+0.2+0.1)		1.0000
METTLER AG 285	0.0500		0.0500
1120181838	0.0200		0.0200
6/17/02 FAA	0.0100		0.0100
	2.0000		2.0000
	5.0000		5.0000
	20.0000		20.0000
	50.0000		50.0002
	100.0000		99.9999
Mettler AG285	0.1000		0.1000
1120181846	0-2000		0.2000
20 June 02	0.5000		0.5000
	1.000 (0.5+0.2+0.2+0.1)		1.0000
SARTORIUS	(mg) (500+200+200+100)	1.0000	1.0000
#37010119		2.0000	2.0001
6/27/02		5.0000	5.0001

S	FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
2	Q8609578	4.3518		4.3696		
	Q8609577	4.4047		4.4346	4.4342 FMM	
	Q8609576	4.4045		4.4332		
	Q8609575	4.4086		~~4.4200~~ 4.4236 E.S		
	Q8609574	4.3944		4.4200		
	Q8609573	4.3820		4.4151		
	Q8609572	4.3980	4.3983 4/9/02 FMM	4.4317		
	Q8609571	4.4116		4.4586		
	Q8609570	4.3708		4.4152		
	Q8609569	4.3923		4.4459	4.4457 FMM	6/27/02
	Q8609568	4.3413				
	Q8609567	4.3699				
	Q8609566	4.3652		4.4232		
	Q8609565	4.3893		4.4524		
	Q8609564	4.3782		4.4429	4.4425 FMM	6/11/02
	Q8609563	4.3914		4.5010		
	Q8609562	4.4055		4.4541		
	Q8609561	4.4050		4.4643		
	Q8609560	4.3683	4.3687 4/9/02 FMM	4.4096		
	Q8609559	4.3343		4.3767	4.3762	
	Q8609558	4.3507		4.3894		
	Q8609557	4.3532		4.3750		
	Q8609556	4.3494		4.3771		
	Q8609555	4.3580		4.4011		

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
Q8609531	4.3346				
Q8609532	4.3574				
Q8609533	4.3820				
Q8609534	4.3544				
Q8609535	4.3563				
Q8609536	4.3340				
Q8609537	4.3840				
Q8609538	4.3530				
Q8609539	4.3775				
Q8609540	4.3896	4.3893			
Q8609541	4.3922				
Q8609542	4.3772				
Q8609543	4.3893				
Q8609544	4.3942				
Q8609545	4.3801				
Q8609546	4.3690				
Q8609547	4.3662				
Q8609548	4.3659				
Q8609549	4.3849				
Q8609550	4.3860	4.3863			
Q8609551	4.3948	4.4399			
Q8609552	4.3665				
Q8609553	4.4153	4.4616			
Q8609554	4.3975	4.4435			


NIGHT
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
SUNDAY
NOON
REL. HUMIDITY %
TEMP. °F
BACHARACH
%R.H.
°F
CHART 22-0419
PRINTED IN U.S.A.

US EPA Region 5 Field Sample

5-340236-1

Parameters PM10

Air 2022 0828

Preservative None S M MD B D

Sample ID 02AH53D01 X

Sampler Mike Mumm

Date 6-13-22

PM-10 V AIRS [redacted] OPERATOR OEPA DATE 6-13-

TSP _____ SITE GHS#3013 Q8609569

AVG. RECORDER RESP. 1595 TEMP ____ °C ____ K FINAL WT _____

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____

STD _____ ACTUAL _____ PM-10 _____ ug/m^3

COMMENTS: _____

EPA 3306 (REVISED 10/91)

PM-10 ___V___ AIRS [redacted] OPERATOR COEPA DATE 6-13-02

TSP _____ SITE Conshohocken (340535-1) _____

AVG. RECORDER RESP. 14.2 TEMP _____ °C _____ K FINAL WT _____ g

ELAPSED TIME 1440 MINUTES PRESS _____ mmHg INITIAL WT _____ g

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____ g

STD _____ ACTUAL _____ PM-10 _____ ug/m^3

COMMENTS: _____

EPA 2000 (REVISED 10/01)

US EPA Region 5 Field Sample

5-340235-1

Parameters PM10

Air 2002080

Preservative None S M MD B D

Sample ID 02AH53501 X

Sampler Mike Murphy

Date 6-13-02

EPA 3306(REVISED 10/91)

COMMENTS:

STD _____ ACTUAL _____ PM-10 _____ $\mu g/m^3$

FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____

ELAPSED TIME 1414.0 MINUTES PRESS _____ mmHg INITIAL WT _____

AVG. RECORDER RESP. 15.95 TEMP _____ °C _____ K FINAL WT _____

TSP _____ SITE Rubis # 0860 9551

PM-10 ✓ AIRS [redacted] OPERATOR EPA DATE 6-13-

US EPA Region 5 Field Sample

5-340237-1

Parameters PM10

AIR 20020086

Preservative None S M MD B D

Sample ID 02AH53S02 X

Sampler Mike Murphy

Date 6-13-02

[redacted]

US EPA Region 5 Field Sample
5-340238-1
Parameters PM10
Air 2002086
Preservative None S M MD B D
Sample ID 02AH53S03 X
Sampler Mike Murphy
Date 6-13-02

PM-10 ✓ AIRS [redacted] OPERATOR OEPA DATE 6-13-0

TSP ______ SITE Addamville Q8609553

AVG. RECORDER RESP. 166 TEMP ____ °C ____ K FINAL WT ______

ELAPSED TIME 1440 MINUTES PRESS ______ mmHg INITIAL WT ______

FLOW ______ m^3/min TOTAL FLOW ______ m^3 SAMPLE WT ______

STD ______ ACTUAL ______ PM-10 ______ ug/m^3

COMMENTS: ______________________

EPA 3306 (REVISED 10/91)